

Appendix of Claims

1. A method for preserving fresh and processed mushrooms, comprising the steps of:
contacting the mushrooms with an antimicrobial buffer solution having a pH of from about 9.5 to about 11.0; and
rinsing the mushrooms one or more times immediately after said contacting step with pH-neutralizing buffer solutions of erythorbic acid and sodium erythorbate, in ratios of about 1:4, having a sufficient pH to return the mushrooms to the mushroom physiological pH of about 6.5.
2. The method of claim 1 wherein said antimicrobial solution is 0.05-0.5M sodium bicarbonate buffer solution, and the pH-neutralizing buffer solutions are about 0.04-0.6% erythorbic acid and about 1.6-2.4% sodium erythorbate.
3. The method of claim 2 wherein said contacting step is carried out for about 30-60 seconds at about 10-35.degree. C., and said rinsing step is carried out for about 60-120 seconds at about 10-25.degree. C.
4. The method of claim 3 wherein said pH-neutralizing buffer solutions further include 1000 ppm calcium-disodium EDTA.
5. The method of claim 3 wherein said pH-neutralizing buffer solutions further include 1000 ppm calcium chloride.
6. The method of claim 3 wherein said pH-neutralizing buffer solutions further include 1000

ppm calcium-disodium EDTA and 1000 ppm calcium chloride.

7. The method of claims 2-6 wherein said antimicrobial solution is a 0.05M sodium bicarbonate buffer solution having a pH of about 10.5-11.0, and the pH-neutralizing buffer solutions include about 0.6% erythorbic acid and about 2.4% sodium erythorbate, and said contacting step is carried out for about 30 seconds at about 25.degree. C., and said rinsing step is carried out for about 60 seconds at about 10.degree. C.

8. The method of claim 1 wherein said antimicrobial solution is a 5-10% tribasic sodium phosphate solution.

9. A method for preserving fresh and processed mushrooms, comprising the steps of:
contacting the mushrooms briefly with an antimicrobial buffer solution having a pH of at least about 9; and
rinsing the mushrooms one or more times after said contacting step with a pH-neutralizing solution having a sufficient pH to return the mushrooms to the mushroom physiological pH of about 6.5.

10. The method of claim 9 wherein the antimicrobial buffer solution has a pH in the range of about 10.5 to about 11.0.

11. The method of claim 9 wherein the pH-neutralizing solution comprises a browning inhibitor.

12. The method of claim 9 wherein the pH-neutralizing solution comprises erythorbic acid.

13. The method of claim 9 wherein the pH-neutralizing solution comprises sodium erythorbate.

14. The method of claim 9 wherein the pH-neutralizing solution is a buffer solution comprising erythorbic acid and sodium erythorbate.

15. The method of claim 14 wherein the pH-neutralizing solution is a buffer solution comprising about 0.04-0.6% erythorbic acid and about 1.6-2.4% sodium erythorbate.

16. The method of claim 9 wherein the pH-neutralizing solution comprises EDTA.

17. The method of claim 14 wherein the pH-neutralizing solution comprises EDTA.

18. The method of claim 9 wherein the pH-neutralizing solution comprises calcium chloride.

19. The method of claim 14 wherein the pH-neutralizing solution comprises calcium chloride.

20. The method of claim 9 wherein the pH-neutralizing solution comprises EDTA and calcium chloride.

21. The method of claim 14 wherein the pH-neutralizing solution comprises EDTA and calcium chloride.

22. The method of claim 9 wherein the pH-neutralizing solution is water.

23. The method of claim 9 wherein the antimicrobial buffer solution comprises sodium bicarbonate.

24. The method of claim 10 wherein the antimicrobial buffer solution comprises sodium bicarbonate.

25. The method of claim 11 wherein the antimicrobial buffer solution comprises sodium bicarbonate.

26. The method of claim 14 wherein the antimicrobial buffer solution comprises sodium bicarbonate.

27. The method of claim 17 wherein the antimicrobial buffer solution comprises sodium bicarbonate.

28. The method of claim 19 wherein the antimicrobial buffer solution comprises sodium bicarbonate.

29. The method of claim 21 wherein the antimicrobial buffer solution comprises sodium bicarbonate.

30. The method of claim 9 wherein the antimicrobial buffer solution comprises tribasic sodium phosphate.

31. The method of claim 10 wherein the antimicrobial buffer solution comprises tribasic sodium phosphate.

32. The method of claim 11 wherein the antimicrobial buffer solution comprises tribasic sodium phosphate.

33. The method of claim 14 wherein the antimicrobial buffer solution comprises tribasic sodium phosphate.

34. The method of claim 17 wherein the antimicrobial buffer solution comprises tribasic sodium phosphate.

35. The method of claim 19 wherein the antimicrobial buffer solution comprises tribasic sodium phosphate.

36. The method of claim 21 wherein the antimicrobial buffer solution comprises tribasic sodium phosphate.

37. The method of claim 22 wherein the antimicrobial buffer solution comprises tribasic sodium phosphate.